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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,639

03/30/2004

Satoshi Ajiki

CU-3673 RJS

5276

26530 7590 07/25/2008

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EXAMINER

CUTLER, ALBERT H

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

07/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/812,639	Applicant(s) AJIKI ET AL.	
	Examiner ALBERT H. CUTLER	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to communication filed on March 19, 2008.

Claims 1-10 are pending in the application and have been examined by the Examiner.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 19, 2008 has been entered.

Response to Arguments

3. Applicant's arguments filed March 19, 2008 have been fully considered but they are not persuasive.

4. Applicant argues that Segawa fails to teach that the contacting end is structured to contact a side of the module/electrode pad, or that this side/lateral contact imposes a lateral force on the module/electrode pad. Applicant references figures 5, 12B, 13B and 13C to show the supposed differences.

5. The Examiner respectfully disagrees. First of all, figures 5, 12B, 13B and 13C show different embodiments than those cited by applicant (i.e. figure 2), see paragraphs 0056 and 0073. Therefore, arguments with regards to these figures are moot. The Examiner asserts that Segawa does indeed teach that the contacting end is structured to contact a side of the module/electrode pad (The contacting end is part of the spring

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electrode (15), as previously defined by the Examiner. This contacting end (see 15) contacts a bottom side of the module/electrode pad (6, 8, see figure 2). Segawa also teaches that this contact imposes a lateral force on the module/electrode pad (see figure 2, paragraphs 0034 and 0036). Segawa defines a pressing part (19a) as an inside edge of the lens holder (13, see figure 2), and teaches that pressing part (19a) presses the connection terminal (8b) of the flexible board (8) against the spring electrodes (15) in order to attain an electrical and physical connection (paragraphs 0034 and 0036). Figure 2 shows that the spring electrodes (15) extend along the top and sides of the connector (12). Paragraph 0034 details that the flexible board (8) is "pressed" into contact "at the spring part" to attain an electrical connection. Paragraph 0037 details that the spring electrodes (15) are "biased in the direction opposite to the direction in which the pressing part (19a) exerts a force". As the pressing part (19a) is on the inner edge of the module (6), and the spring electrodes (15) are on the outer edge of the connector (12, see figure 2), and the spring electrodes (15) are biased opposite the direction in which the pressing part exerts a force, the spring electrodes (15) clearly provide a lateral force on the module/electrode pad. Paragraph 0036 additionally teaches that the "flexible board 8 is deformed along the outer shape of the connector 12", and that a firm connection with the spring electrodes (15) is obtained.

6. Therefore, the rejection is maintained by the Examiner.

Claim Objections

7. Claim 4 is objected to because of the following informalities: Lack of clarity and precision.

8. Claim 4 recites, "The mounting structure". However, no mounting structure has been previously defined in the claim. Therefore, claim 4 should be amended to read, "A mounting structure", or something of similar nature. Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1, 2, 4, 5, 6, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Segawa et al.(US 2002/0057468).

11. The response to Applicant's arguments, as outlined above, is hereby incorporated into the rejection of claims 1, 2, 4, 5, 6 and 8 by reference.

Consider claim 1, Segawa et al. teach:

A mounting structure(figure 2) for installing a module("photoelectric conversion module", 6) into a socket(See figure 4 for explanatory purposes. The top part of figure 4 is the camera module(6) including a lens(5) and an image sensor(7). The module is mounted into a socket(i.e. the bottom part of figure 4), comprising a connector(12) and a board(1).), the mounting structure(see figure 2) comprising:

an electrode pad("flexible board", 8) formed in a lower portion of the module(see figure 2);

a contacting member(15) having a contacting end and a springy portion(The contacting member is a "spring electrode", paragraph 0034. Therefore, the contacting end and the springy portion are one in the same, as the contacting end is part of a springy portion.) disposed in the socket(See figure 2, paragraph 0034. Spring electrodes(15) are connected to connectors(12) in the socket.); and

a depressed portion formed on the lower portion of the compact camera module(See figures 2 and 4. The camera module contains a depressed portion on the lower portion between the image sensor(7) and the lens holder(13). This depressed portion is where the connector(12, figure 2) is fitted.);

wherein, when the lower portion of the module is inserted into the socket, the depressed portion being shaped and configured to accommodate the springy portion of the contacting member(15) so that the lower portion of the module(6) does not make contact with the springy portion of the contacting member(15)(The lower portion(7), comprising the image sensor, of the camera module(6) is inserted into the socket(see figures 2 and 4). This portion does not make contact with the springy portion(15) of the contacting member when the camera module(6) is inserted into the socket(see figure 2). The depressed portion as originally defined by the Examiner is the "lower portion between the image sensor(7) and the lens holder(13)", figures 4 and 5. This portion, for example, is the area where numeral 16 in figure 4 makes reference to as a "pint". From figure 2, one can clearly see that the springy portion(15) is accommodated in the depressed portion, and in fact, the entire connector(12) is accommodated in the depressed portion.),

and the contacting end (see 15) being shaped and configured to contact a side of the electrode pad (8) to impose a lateral force on the electrode pad toward an inner side of the module(See paragraphs 0034-0039. Segawa et al. state that, "the terminal 8b is thereby firmly connected to the electrodes 15", paragraph 0036. The spring electrodes(15) are "**pressed** into contact with the external connection terminal 8b", paragraph 0034. As 8b is on an inner side of the contact camera module, Segawa et al. satisfy the limitation that the contacting end pushes the electrode pad to an inner side of the compact camera module. As a pressing part(19a) is on the inner edge of the module(6), and the spring electrodes(15) are on the outer edge of the connector(12, see figure 2), and the spring electrodes(15) are biased opposite the direction in which the pressing part exerts a force, the spring electrodes(15) clearly provide a lateral force on the module/electrode pad, paragraphs 0034-0037.).

Consider claim 2, Segawa et al. teach:

A mounting structure(figure 2) for installing a module("photoelectric conversion module", 6) into a socket(See figure 4 for explanatory purposes. The top part of figure 4 is the camera module(6) including a lens(5) and an image sensor(7). The module is mounted into a socket(i.e. the bottom part of figure 4), comprising a connector(12) and a board(1).), the mounting structure(see figure 2) comprising:

an electrode pad("flexible board", 8) formed in a lower portion of the module(6);

a contacting member(15) having a contacting end(The contacting member is a "spring electrode", paragraph 0034.) disposed in the socket(See figure 2, paragraph

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0034. Spring electrodes(15) are connected to connectors(12) in the socket.), the contacting end(15) being shaped and configured to contact as side of the electrode pad(8) to impose a lateral force on the electrode pad toward an inner side of the module when the lower portion of the module is inserted into the socket(See paragraphs 0034-0039. Segawa et al. state that, "the terminal 8b is thereby firmly connected to the electrodes 15", paragraph 0036. The spring electrodes(15) are "**pressed** into contact with the external connection terminal 8b", paragraph 0034. As 8b is on an inner side of the contact camera module, Segawa et al. satisfy the limitation that the contacting end pushes the electrode pad to an inner side of the compact camera module. As a pressing part(19a) is on the inner edge of the module(6), and the spring electrodes(15) are on the outer edge of the connector(12, see figure 2), and the spring electrodes(15) are biased opposite the direction in which the pressing part exerts a force, the spring electrodes(15) clearly provide a lateral force on the module/electrode pad, paragraphs 0034-0037.); and

an engagement member(15) disposed in the socket to releasably engage a side surface(bottom side surface) of the module(6) when the lower portion of the compact camera module is inserted into the socket so that the compact camera module(6) does not separate from the socket(Pressure between the spring electrode(15) and the electrode pad(8b) holds(i.e. releasably engages) the camera module(6) with the socket. See paragraphs 0034-0039.).

Consider claim 4, Segawa et al. teach:

A mounting structure (figure 2) for installing a module ("photoelectric conversion module", 6) into a socket (See figure 4 for explanatory purposes. The top part of figure 4 is the camera module (6) including a lens (5) and an image sensor (7). The module is mounted into a socket (i.e. the bottom part of figure 4), comprising a connector (12) and a board (1).), the mounting structure (see figure 2) comprising:

an electrode pad ("flexible board", 8) formed in a lower portion of the module (6);
a contacting member (15) having a contacting end (The contacting member is a "spring electrode", paragraph 0034.) disposed in the socket (See figure 2, paragraph 0034. Spring electrodes (15) are connected to connectors (12) in the socket.), the contacting end (15) being shaped and configured to contact a side (bottom side) of the electrode pad (8) to impose a lateral force on the electrode pad toward an inner side of the module when the lower portion of the compact camera module is inserted into the socket (See paragraphs 0034-0039. Segawa et al. state that, "the terminal 8b is thereby firmly connected to the electrodes 15", paragraph 0036. The spring electrodes (15) are "**pressed** into contact with the external connection terminal 8b", paragraph 0034. As 8b is on an inner side of the contact camera module, Segawa et al. satisfy the limitation that the contacting end pushes the electrode pad to an inner side of the compact camera module. As a pressing part (19a) is on the inner edge of the module (6), and the spring electrodes (15) are on the outer edge of the connector (12, see figure 2), and the spring electrodes (15) are biased opposite the direction in which the pressing part exerts a force, the spring electrodes (15) clearly provide a lateral force on the module/electrode pad, paragraphs 0034-0037.);

a recess formed on a side surface (bottom side surface) of the lower portion of the module(See figures 2 and 4. The camera module contains a recessed portion on the lower portion between the image sensor(7) and the lens holder(13). This depressed portion is where the connector(12, figure 2) is fitted.); and

a cutout formed on the socket at a position in correspondence to the recess, the recess facing the cutout when the lower portion of the module is inserted into the socket(See figures 2 and 4. The connector(12) of the socket contains a cutout portion on the outside edge thereof, which cutout portion faces the recessed portion of the camera module, and accommodates the flexible board(8).),

wherein the recess is engagable with a de-installation tool through the cutout when the lower portion of the module is inserted into the socket(The recess and cutout are engagable with the spring electrode(15, i.e. a deinstallation tool), which connects the recessed portion and cutout portion when the camera module is inserted into the socket, paragraphs 0034-0039.).

Consider claim 5, Segawa et al. teach:

A compact camera module set(figure 2), comprising:

a compact camera module(6) including a lens(5) and a solid image pickup device(7);

a socket(See figure 4 for explanatory purposes. The top part of figure 4 is the camera module(6) including a lens(5) and an image sensor(7). The module is mounted

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into a socket(i.e. the bottom part of figure 4), comprising a connector(12) and a board(1).);

an electrode pad("flexible board", 8) formed in a lower portion of the compact camera module(6);

a contacting member(15) having a contacting end and a springy portion(The contacting member is a "spring electrode", paragraph 0034. Therefore, the contacting end and the springy portion are one in the same, as the contacting end is part of a springy portion.) disposed in the socket(See figure 2, paragraph 0034. Spring electrodes(15) are connected to connectors(12) in the socket.); and

a depressed portion formed on the lower portion of the compact camera module(See figures 2 and 4. The camera module contains a depressed portion on the lower portion between the image sensor(7) and the lens holder(13). This depressed portion is where the connector(12, figure 2) is fitted.);

wherein, when the lower portion of the compact camera module is inserted into the socket, the depressed portion being shaped and configured to accommodate the springy portion of the contacting member(15) so that the lower portion of the compact camera module(6) does not make contact with the springy portion of the contacting member(15)(The lower portion(7), comprising the image sensor, of the camera module(6) is inserted into the socket(see figures 2 and 4). This portion does not make contact with the springy portion(15) of the contacting member when the camera module(6) is inserted into the socket(see figure 2). The depressed portion as originally defined by the Examiner is the "lower portion between the image sensor(7) and the lens

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holder(13)", figures 4 and 5. This portion, for example, is the area where numeral 16 in figure 4 makes reference to as a "pint". From figure 2, one can clearly see that the springy portion(15) is accommodated in the depressed portion, and in fact, the entire connector(12) is accommodated in the depressed portion.),

and the contacting end being shaped as configured to contact a side(bottom side) of the electrode pad(8) to impose a lateral force on the electrode pad toward an inner side of the compact camera module(See paragraphs 0034-0039. Segawa et al. state that, "the terminal 8b is thereby firmly connected to the electrodes 15", paragraph 0036. The spring electrodes(15) are "**pressed** into contact with the external connection terminal 8b", paragraph 0034. As 8b is on an inner side of the contact camera module, Segawa et al. satisfy the limitation that the contacting end pushes the electrode pad to an inner side of the compact camera module. As a pressing part(19a) is on the inner edge of the module(6), and the spring electrodes(15) are on the outer edge of the connector(12, see figure 2), and the spring electrodes(15) are biased opposite the direction in which the pressing part exerts a force, the spring electrodes(15) clearly provide a lateral force on the module/electrode pad, paragraphs 0034-0037.).

Consider claim 6, Segawa et al. teach:

A compact camera module set(figure 2), comprising:

a compact camera module(6) including a lens(5) and a solid image pickup device(7);

a socket(See figure 4 for explanatory purposes. The top part of figure 4 is the camera module(6) including a lens(5) and an image sensor(7). The module is mounted into a socket(i.e. the bottom part of figure 4), comprising a connector(12) and a board(1).);

an electrode pad("flexible board", 8) formed in a lower portion of the compact camera module(6);

a contacting member(15) having a contacting end(The contacting member is a "spring electrode", paragraph 0034.) disposed in the socket(See figure 2, paragraph 0034. Spring electrodes(15) are connected to connectors(12) in the socket.), the contacting end(15) being shaped and configured to contact a side(bottom side) of the electrode pad(8) to impose a lateral force on the electrode pad(8) toward an inner side of the compact camera module when the lower portion of the compact camera module is inserted into the socket(See paragraphs 0034-0039. Segawa et al. state that, "the terminal 8b is thereby firmly connected to the electrodes 15", paragraph 0036. The spring electrodes(15) are "**pressed**" into contact with the external connection terminal 8b", paragraph 0034. As 8b is on an inner side of the compact camera module, Segawa et al. satisfy the limitation that the contacting end pushes the electrode pad to an inner side of the compact camera module. As a pressing part(19a) is on the inner edge of the module(6), and the spring electrodes(15) are on the outer edge of the connector(12, see figure 2), and the spring electrodes(15) are biased opposite the direction in which the pressing part exerts a force, the spring electrodes(15) clearly provide a lateral force on the module/electrode pad, paragraphs 0034-0037.); and

an engagement member(15) disposed in the socket to releasably engage a side surface(bottom side surface) of the compact camera module(6) when the lower portion of the compact camera module is inserted into the socket(Pressure between the spring electrode(15) and the electrode pad(8b) holds(i.e. releasably engages) the camera module(6) in the socket. See paragraphs 0034-0039.).

Consider claim 8, Segawa et al. teach:

A compact camera module set(figure 2), comprising:

a compact camera module(6) including a lens(5) and a solid image pickup device(7); and

a socket(See figure 4 for explanatory purposes. The top part of figure 4 is the camera module(6) including a lens(5) and an image sensor(7). The module is mounted into a socket(i.e. the bottom part of figure 4), comprising a connector(12) and a board(1).);

an electrode pad("flexible board", 8) formed in a lower portion of the compact camera module(6);

a contacting member(15) having a contacting end(The contacting member is a "spring electrode", paragraph 0034.) disposed in the socket(See figure 2, paragraph 0034. Spring electrodes(15) are connected to connectors(12) in the socket.), the contacting end(15) being shaped and configured to contact a side(bottom side) of the electrode pad(8) to impose a lateral force on the electrode pad(8) toward an inner side of the compact camera module when the lower portion of the compact camera module

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is inserted into the socket(See paragraphs 0034-0039. Segawa et al. state that, "the terminal 8b is thereby firmly connected to the electrodes 15", paragraph 0036. The spring electrodes(15) are "**pressed** into contact with the external connection terminal 8b", paragraph 0034. As 8b is on an inner side of the contact camera module, Segawa et al. satisfy the limitation that the contacting end pushes the electrode pad to an inner side of the compact camera module. As a pressing part(19a) is on the inner edge of the module(6), and the spring electrodes(15) are on the outer edge of the connector(12, see figure 2), and the spring electrodes(15) are biased opposite the direction in which the pressing part exerts a force, the spring electrodes(15) clearly provide a lateral force on the module/electrode pad, paragraphs 0034-0037.); and

a recess formed on a side surface(bottom side surface) of the lower portion of the compact camera module(See figures 2 and 4. The camera module contains a recessed portion on the lower portion between the image sensor(7) and the lens holder(13). This depressed portion is where the connector(12, figure 2) is fitted.); and

a cutout formed on the socket at a position in correspondence to the recess, the recess facing the cutout when the lower portion of the compact camera module is inserted into the socket(See figures 2 and 4. The connector(12) of the socket contains a cutout portion on the outside edge thereof, which cutout portion faces the recessed portion of the camera module, and accommodates the flexible board(8).), the recess being engagable with a de-installation tool through the cutout when the lower portion of the compact camera module is inserted into the socket(The recess and cutout are engagable with the spring electrode(15, i.e. a deinstallation tool), which connects the

recessed portion and cutout portion when the camera module is inserted into the socket, paragraphs 0034-0039.).

Consider claim 9, and as applied to claim 2 above, Segawa further teaches that the engagement member releasably engages a recess in the side surface(bottom side surface) of the module(Pressure between the spring electrode(15) and the electrode pad(8b) holds(i.e. releasably engages) the camera module(6) in the socket. See paragraphs 0034-0039.).

Consider claim 10, and as applied to claim 6 above, Segawa further teaches that the engagement member releasably engages a recess in the side surface(bottom side surface) of the module(Pressure between the spring electrode(15) and the electrode pad(8b) holds(i.e. releasably engages) the camera module(6) in the socket. See paragraphs 0034-0039.).

Claim Rejections - 35 USC § 103

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segawa et al. in view of Akimoto et al.(US 2002/0191103).

Consider claim 3, and as applied to claim 2 above, Segawa et al. teach of a socket and an engagement member. However Segawa et al. do not explicitly teach that the socket comprises a grounding contact member, or that the engagement member is a portion of the grounding contacting member.

Akimoto et al. is similar to Segawa et al. in that Akimoto et al. also teach of a camera module connected to a socket(see figure 2, paragraphs 0023-0027). Akimoto et al. also similarly teach of electrodes connected to the camera module(11, figures 1-3, paragraphs 0019, 0028, and 0029).

However, in addition to the teachings of Segawa et al., Akimoto et al. teach that one of the electrodes(11a, figures 3 and 4) is a grounding contact member(paragraphs 0028 and 0029).

The spring electrodes taught by Segawa et al. are engagement members(see claim 2 rationale). Therefore, if one of the spring electrodes of Segawa et al. is a ground electrode as taught by Akimoto et al., then the engagement member is a portion of the ground contacting member.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include a grounding contact member as taught by Akimoto et al., as one of the spring electrodes taught by Segawa et al. for the benefit of preventing charge buildup and providing assistance in the alignment of the camera module by indicating a correct orientation to a user(Akimoto et al., paragraphs 0028 and 0029).

Consider claim 7, and as applied to claim 6 above, Segawa et al. teach of a socket and an engagement member. However Segawa et al. do not explicitly teach that the socket comprises a grounding contact member, or that the engagement member is a portion of the grounding contacting member.

Akimoto et al. is similar to Segawa et al. in that Akimoto et al. also teach of a camera module connected to a socket(see figure 2, paragraphs 0023-0027). Akimoto et al. also similarly teach of electrodes connected to the camera module(11, figures 1-3, paragraphs 0019, 0028, and 0029).

However, in addition to the teachings of Segawa et al., Akimoto et al. teach that one of the electrodes(11a, figures 3 and 4) is a grounding contact member(paragraphs 0028 and 0029).

The spring electrodes taught by Segawa et al. are engagement members(see claim 6 rationale). Therefore, if one of the spring electrodes of Segawa et al. is a ground electrode as taught by Akimoto et al., then the engagement member is a portion of the ground contacting member.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include a grounding contact member as taught by Akimoto et al., as one of the spring electrodes taught by Segawa et al. for the benefit of preventing charge buildup and providing assistance in the alignment of the camera module by indicating a correct orientation to a user(Akimoto et al., paragraphs 0028 and 0029).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALBERT H. CUTLER whose telephone number is (571)270-1460. The examiner can normally be reached on Mon-Thu (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AC/
07/18/2008

***/Ngoc-Yen T. VU/
Supervisory Patent Examiner, Art Unit 2622***